

Southern, Assessment Unit 60900102
Assessment Results Summary

[MMBO, million barrels of oil. BCFG, billion cubic feet of gas. MMBNGL, million barrels of natural gas liquids. MFS, minimum field size assessed (MMBO or BCFG). Prob., probability (including both geologic and accessibility probabilities) of at least one field equal to or greater than the MFS. Results shown are fully risked estimates. For gas fields, all liquids are included under the NGL (natural gas liquids) category. F95 represents a 95 percent chance of at least the amount tabulated. Other fractiles are defined similarly. Fractiles are additive under the assumption of perfect positive correlation. Shading indicates not applicable]

Field Type	MFS	Prob. (0-1)	Undiscovered Resources												Largest Undiscovered Field (MMBO or BCFG)			
			Oil (MMBO)				Gas (BCFG)				NGL (MMBNGL)				F95	F50	F5	Mean
			F95	F50	F5	Mean	F95	F50	F5	Mean	F95	F50	F5	Mean				
Oil Fields	5	1.00	52	168	391	188	9	33	93	40	1	2	6	2	18	47	133	57
Gas Fields	30						0	0	0	0	0	0	0	0	NA	NA	NA	NA
Total		1.00	52	168	391	188	9	33	93	40	1	2	6	2				

60900102
Southern
Monte Carlo Results

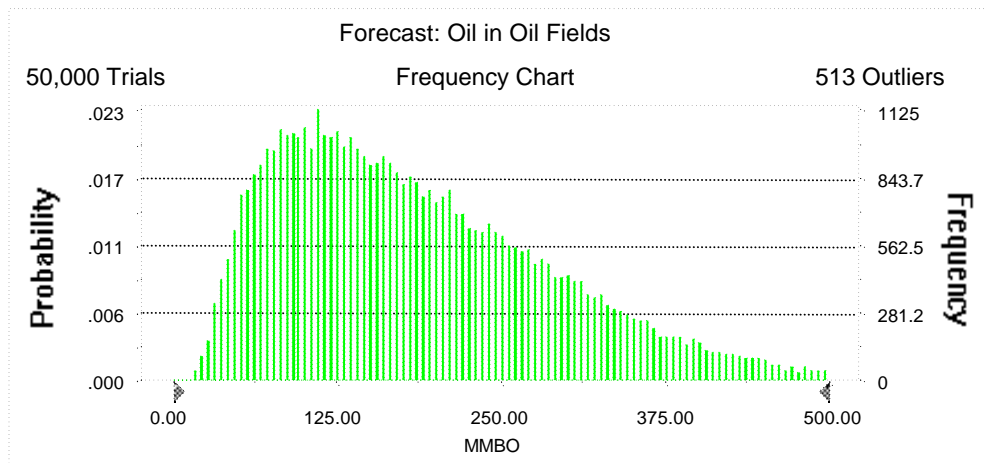
Forecast: Oil in Oil Fields

Summary:

Display range is from 0.00 to 500.00 MMBO
Entire range is from 13.92 to 862.20 MMBO
After 50,000 trials, the standard error of the mean is 0.48

Statistics:

	<u>Value</u>
Trials	50000
Mean	188.34
Median	168.23
Mode	---
Standard Deviation	107.42
Variance	11,538.57
Skewness	0.92
Kurtosis	3.79
Coefficient of Variability	0.57
Range Minimum	13.92
Range Maximum	862.20
Range Width	848.28
Mean Standard Error	0.48



60900102
Southern
Monte Carlo Results

Forecast: Oil in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	13.92
95%	51.98
90%	67.06
85%	80.22
80%	92.39
75%	104.45
70%	116.38
65%	128.64
60%	141.08
55%	154.62
50%	168.23
45%	182.89
40%	198.60
35%	214.76
30%	233.28
25%	253.35
20%	275.90
15%	302.88
10%	336.62
5%	391.09
0%	862.20

End of Forecast

60900102
Southern
Monte Carlo Results

Forecast: Gas in Oil Fields

Summary:

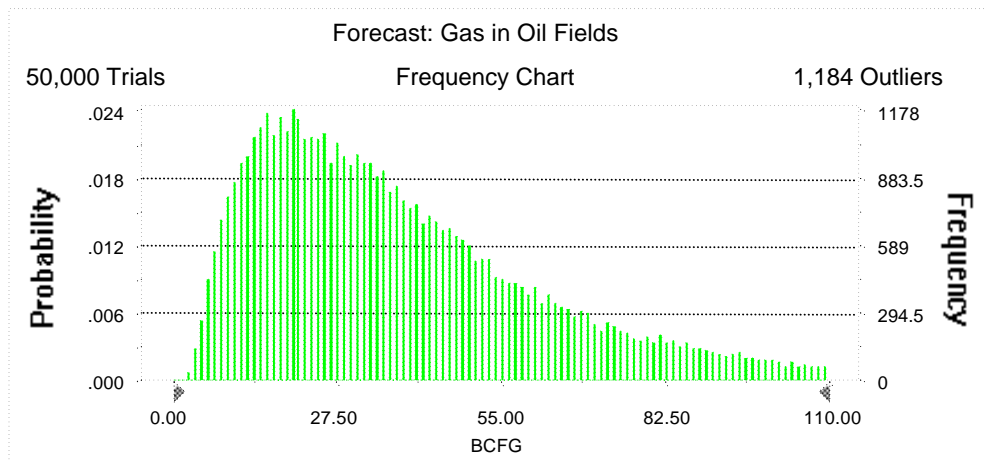
Display range is from 0.00 to 110.00 BCFG

Entire range is from 1.94 to 224.11 BCFG

After 50,000 trials, the standard error of the mean is 0.12

Statistics:

	<u>Value</u>
Trials	50000
Mean	39.65
Median	33.27
Mode	---
Standard Deviation	26.85
Variance	720.79
Skewness	1.45
Kurtosis	5.91
Coefficient of Variability	0.68
Range Minimum	1.94
Range Maximum	224.11
Range Width	222.17
Mean Standard Error	0.12



60900102
Southern
Monte Carlo Results

Forecast: Gas in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	1.94
95%	9.31
90%	12.39
85%	15.01
80%	17.45
75%	19.93
70%	22.34
65%	24.97
60%	27.64
55%	30.41
50%	33.27
45%	36.26
40%	39.61
35%	43.38
30%	47.39
25%	52.16
20%	58.08
15%	65.44
10%	75.84
5%	92.87
0%	224.11

End of Forecast

60900102
Southern
Monte Carlo Results

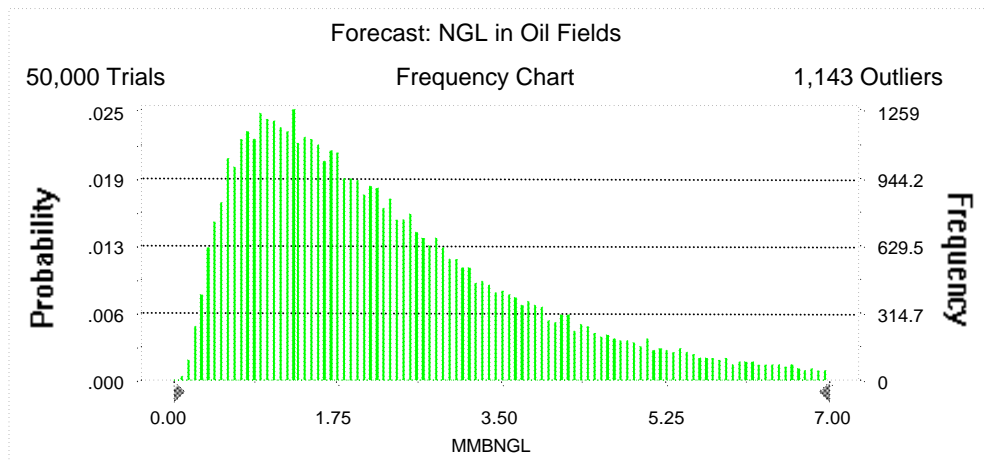
Forecast: NGL in Oil Fields

Summary:

Display range is from 0.00 to 7.00 MMBNGL
Entire range is from 0.08 to 19.29 MMBNGL
After 50,000 trials, the standard error of the mean is 0.01

Statistics:

	<u>Value</u>
Trials	50000
Mean	2.38
Median	1.94
Mode	---
Standard Deviation	1.72
Variance	2.94
Skewness	1.67
Kurtosis	7.18
Coefficient of Variability	0.72
Range Minimum	0.08
Range Maximum	19.29
Range Width	19.20
Mean Standard Error	0.01



60900102
Southern
Monte Carlo Results

Forecast: NGL in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	0.08
95%	0.52
90%	0.70
85%	0.85
80%	1.00
75%	1.15
70%	1.29
65%	1.45
60%	1.60
55%	1.77
50%	1.94
45%	2.14
40%	2.34
35%	2.57
30%	2.83
25%	3.13
20%	3.50
15%	3.97
10%	4.64
5%	5.76
0%	19.29

End of Forecast

60900102
Southern
Monte Carlo Results

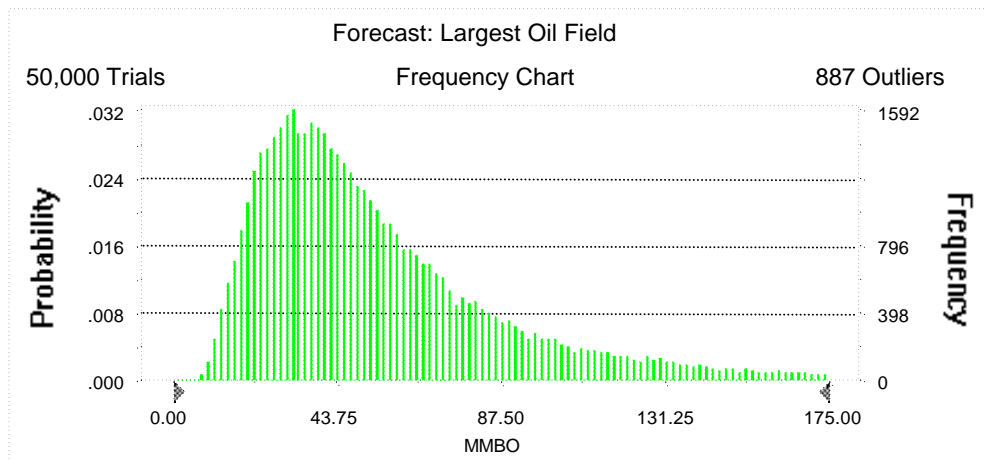
Forecast: Largest Oil Field

Summary:

Display range is from 0.00 to 175.00 MMBO
Entire range is from 6.71 to 249.76 MMBO
After 50,000 trials, the standard error of the mean is 0.17

Statistics:

	<u>Value</u>
Trials	50000
Mean	56.85
Median	46.64
Mode	---
Standard Deviation	37.18
Variance	1,381.99
Skewness	1.80
Kurtosis	7.07
Coefficient of Variability	0.65
Range Minimum	6.71
Range Maximum	249.76
Range Width	243.06
Mean Standard Error	0.17



60900102
Southern
Monte Carlo Results

Forecast: Largest Oil Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	6.71
95%	18.30
90%	22.40
85%	25.60
80%	28.65
75%	31.52
70%	34.37
65%	37.32
60%	40.23
55%	43.32
50%	46.64
45%	50.26
40%	54.24
35%	58.82
30%	64.12
25%	70.28
20%	78.35
15%	88.76
10%	104.53
5%	133.18
0%	249.76

End of Forecast

60900102
Southern
Monte Carlo Results

Assumptions

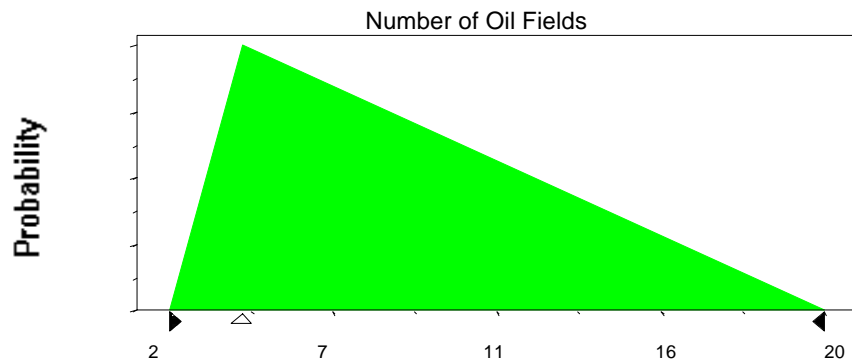
Assumption: Number of Oil Fields

Triangular distribution with parameters:

Minimum	2
Likeliest	4
Maximum	20

Selected range is from 2 to 20

Mean value in simulation was 9



Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:

Mean	17.09
Standard Deviation	23.68

Shifted parameters

22.09
23.68

Selected range is from 0.00 to 245.00

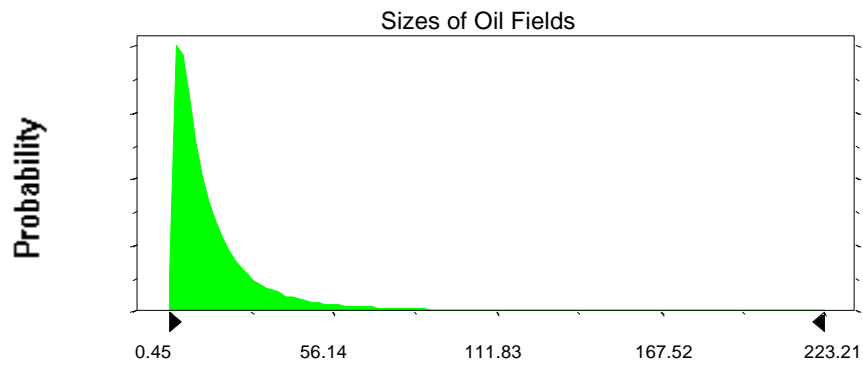
Mean value in simulation was 16.75

5.00 to 250.00

21.75

60900102
Southern
Monte Carlo Results

Assumption: Sizes of Oil Fields (cont'd)



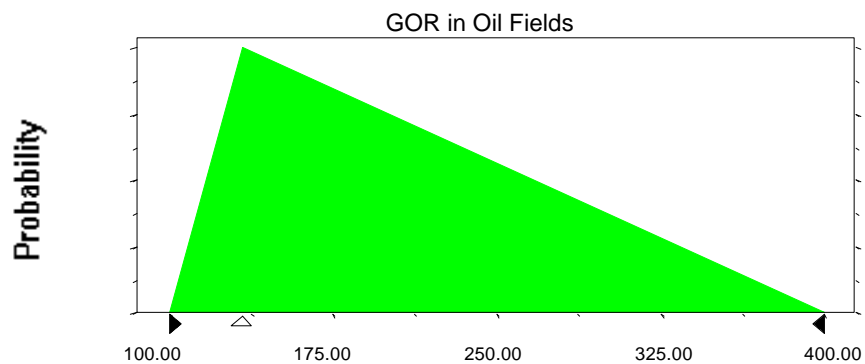
Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	100.00
Likeliest	133.33
Maximum	400.00

Selected range is from 100.00 to 400.00

Mean value in simulation was 210.59



60900102
Southern
Monte Carlo Results

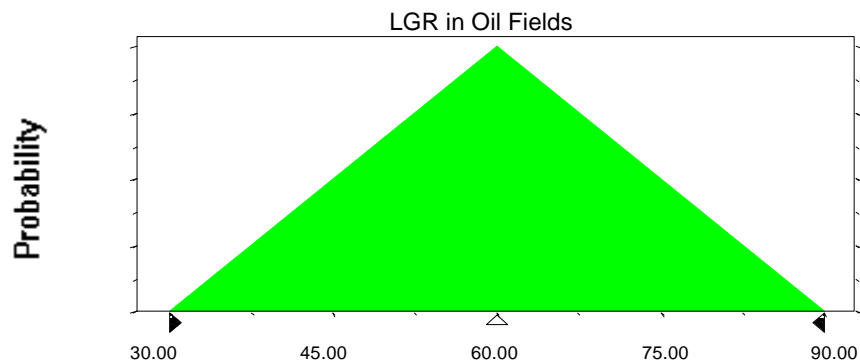
Assumption: LGR in Oil Fields

Triangular distribution with parameters:

Minimum	30.00
Likeliest	60.00
Maximum	90.00

Selected range is from 30.00 to 90.00

Mean value in simulation was 60.03



End of Assumptions

Simulation started on 7/13/99 at 15:35:16

Simulation stopped on 7/13/99 at 15:48:00